



STATE OF TENNESSEE  
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# **CLASSIFICATION OF WORKERS UNDER TENNESSEE'S PREVAILING WAGE LAW BUILDING CONSTRUCTION CRAFTS**



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## BOILERMAKER

Assembles, analyzes defects in, and repairs boilers, pressure vessels, tanks, and vats in field, following blueprints and using hand tools and portable power tools and equipment: Locates and marks reference points for columns or plates on foundation, using *master straightedge*, squares, transit, measuring tape, and applying knowledge of geometry. Attaches rigging or signals crane operator to lift parts to specified position. Aligns structures or plate sections to assembly boiler frame, tanks, or vats, using plumb bobs, levels, wedges, dogs, or turnbuckles. Hammers, flame-cuts, files, or grinds irregular edges of sections or structural parts to facilitate fitting edges together. Bolts or arc-welds structures and sections together. Positions drums and *headers* into supports and bolts or welds supports to frame. Aligns water tubes and connects and expands ends to drums and headers, using tube expander. Bells, beads with power hammer, or welds tube ends to ensure leak proof joints. Bolts or welds casing sections, uptakes, stacks, baffles, and such fabricated parts as chutes, air heaters, fan stands, feeding tube, catwalks, ladders, coal hoppers, and safety hatch to frame, using wrench. Installs manholes, handholes, valves, gauges, and feedwater connection in drums to complete assembly of water tube boilers. Assists in testing assembled vessels by pumping water or gas under specified pressure into vessel and observing instruments for evidence of leakage. Repairs boilers or tanks in field by unbolting or flame cutting defective sections or tubes, straightening □plates, using torch or jacks, installing new tubes, fitting and welding new sections and replacing worn lugs on bolts. May rivet and caulk sections of vessels, using pneumatic riveting and caulking hammers. May line firebox with refractory brick and asbestos rope and blocks. May fabricate such parts as stacks, uptakes, and chutes to adapt boiler to premises in which it is installed.

Assembles boilers, tanks, vats, and pressure vessels according to blueprint specifications, using power tools and hand tools: Reads blueprint to determine location and relationship of parts. Connects firetubes to heads or watertubes to drums and headers of boilers, by expanding and beading ends, using tube expander and beading ends, using power hammer. Drills and taps holes for installation of studs, using portable drill. Tightens bolts to assemble frames, using hand or power wrenches. Mounts casings of watertube boilers, or attaches davit heads, burners, or furnace casing to firetube boilers, using wrenches. Bolts or screws accessories, such as manholes, handholes, fans, gauges, and valves to vessel, using handtools or power wrenches. Replaces defective parts, using power wrenches, prying bars, or handtools. May install and repair refractory brick. May thread and install stay bolts, using pipe wrench and dies. May remove and replace rivets and caulk seams to repair riveted shells and structures, using pneumatic chisel, riveter, and caulking hammer. May cut out defective parts, using acetylene torch.

## **BRICKLAYER (Construction)**

Lays building materials, such as brick, structural tile, and concrete cinder, glass, gypsum, and terra cotta block (except stone) to construct or repair walls, partitions, arches, sewers, and other structures: Measures distance from reference points and marks guidelines on working surface to lay out work. Spreads soft bed (layer) of mortar that serves as base and binder for block, using trowel. Applies mortar to end of block and positions block in mortar bed. Taps block with trowel to level, align, and embed in mortar, allowing specified thickness of joint. Removes excess mortar from face of block, using trowel. Finishes mortar between brick with pointing tool or trowel. Breaks bricks to fit spaces too small for whole brick, using edge of trowel or brick hammer. Determines vertical and horizontal alignment of courses, using plumb bob, gaugeline (tightly stretched cord), and level.

Fastens brick or terra cotta veneer to face of structures, with tie wires embedded in mortar between bricks, or in anchor holes in veneer brick. May weld metal parts to steel structural members. May apply plaster to walls and ceiling using trowel, to complete repair work.

## **BRICKLAYER (Firebrick & Refractory Tile)**

Lays firebrick and refractory tile to build, rebuild, reline, or patch high-temperature or heating equipment, such as boilers, ovens, furnaces, converters, cupolas, ladles, and soaking pits, according to job orders and blueprints: Lays out work, using chalklines, plumb bobs, tapes, squares, and levels. Calculates angles and courses for building walls, arches, columns, corners and bottoms. Removes burned or damaged brick and cleans surface of setting, using sledgehammer, pry bar, pneumatic chipping gun, scraper and wire brush. Cuts brick to size, using brick hammer or powered abrasive saw. Spreads fire-clay mortar over brick with trowel and lays brick in place. Spreads or sprays refractories over exposed bricks to protect bricks against deterioration by heat, using trowel or spray gun. Positions or bends special frame or hanger over casings to lay arches. Cuts, notches, or drills openings to provide outlets, pyrometer mountings, brackets and heating elements, using handtools. Patches or replaces firebrick linings of ladles and furnace tap holes. Constructs refractory forms for controlling quantity and flow of molten materials from furnace to rolling machines. May replace bolts, brackets, and heating elements, repair coke oven doors, weld cracks or holes in shell, or perform other repairs. May pack insulation into shells and frames to insulate heating equipment, such as furnaces, boilers and ovens.

## **BRICKLAYER (Stonemason)**

Sets stone to build stone structures, such as piers, walls and abutments, or lays walks, curbstones, or special types of masonry, such as alberene (acid-resistant soapstone for vats, tanks, and floors), using mason's tools: Shapes stone preparatory to setting, using

chisel hammer, and other shaping tools. Spreads mortar over stone and foundation with trowel and sets stone in place by hand or with aid of crane. Aligns stone with plumbline and finishes joints between stone with pointing trowel. May spread mortar along mortar guides to ensure joints of uniform thickness. May clean surface of finished wall to remove mortar, using muriatic acid and brush. May set cut and dressed ornamental and structural stone in buildings.

### **BRICKLAYER (Marble Setter)**

Cuts, tools, and sets marble slabs in floors and walls of buildings and repairs and polishes slab previously set in buildings: Trims, faces and cuts marble to specified size, using power sawing, cutting, and facing equipment and handtools. Drills holes in slab and attaches bracket. Spreads mortar on bottom of slab and on sides of adjacent slabs. Sets block in position, tamps it into place, and anchors bracket attachment with wire. Fills joints with grout. Removes excess grout from marble with sponge. Cleans and bevels cracks or chips on slabs, using handtools and power tools. Heats cracked or chipped area with blowtorch and fills defect with composition mastic that matches grain of marble. Polishes marble and other ornamental stone to high luster, using power tools or by hand.

### **BRICKLAYER (Terrazzo Worker)**

Applies cement, sand, pigment and marble chips to floors, stairways, and cabinet fixtures to attain durable and decorative surfacing according to specifications and drawings: Spreads roofing paper on surface of foundation. Spreads mixture of sand, cement, and water over surface with trowel to form terrazzo base. Cuts metal division strips and presses them into terrazzo base so that top edges form desired design or pattern and define level of finished floor surface. Spreads mixture of marble chips, cement, pigment, and water over terrazzo base to form finished surface, using float and trowel.

Scatters marble chips over finished surface. Pushes roller over surface to imbed chips. Allows surface to dry, and pushes electric-powered surfacing machine over floor to grind and polish terrazzo surface. Grinds curved surfaces and areas inaccessible to surfacing machine, such as stairways and cabinet tops, with portable hand grinder. May precast terrazzo blocks in wooden forms.

### **BRICKLAYER (Tile Setter)**

Applies tile to walls, floors, ceilings and promenade roof decks, following design specifications:

Examines blueprints, measures and marks surfaces to be covered, and lays out work. Measures and cuts metal lath to size for walls and ceilings with tin snips. Tacks lath to wall and ceiling surfaces with staple gun or hammer. Spreads plaster base over lath with trowel and levels plaster to specified thickness, using screed. Spreads concrete on subfloor with trowel and levels it with screed. Spreads mastic or other adhesive base on roof deck using serrated spreader to form base for promenade tile. Cuts and shapes tile with tile cutters and biters. Positions tile and taps it with trowel handle to affix tile to plaster or adhesive base.

### **BRICKLAYER (Marble Finisher)**

Supplies and mixes construction materials for Marble Setter, applies grout, and cleans installed marble: Moves marble installation materials, tools, machines, and work devices to work areas. Mixes mortar, plaster, and grout, as required, following standard formulas and using manual or machine mixing methods. Moves mixed mortar or plaster to installation area, manually or using wheelbarrow. Selects marble slab for installation, following numbered sequence or drawings. Drills holes and chisels channels in edges of marble slabs to install metal wall anchors, using power drill and chisel. Bends wires to form metal anchors, using pliers, inserts anchors into drilled holes of marble slab, and secures anchors in place with wooden stake and plaster. Moves marble slabs to installation site, using dolly, hoist, or portable crane. Fills marble joints and surface imperfections with grout, using grouting trowel or spatula, and removes excess grout, using wet sponge. Grinds and polishes marble, using abrasives, chemicals, and manual or machine grinding and polishing techniques. Cleans installed marble surfaces, work and storage areas,

installation tools, machinery, and work aids, using water and cleaning agents. Stores marble, installation materials, tools, machinery, and related items. May modifying mixing, material moving, grouting, polishing, and cleaning methods and procedures, according to type of installation or materials. May repair and fill chipped, cracked, or broken marble pieces, using torch, spatula, and heat sensitive adhesive and filler. May secure marble anchors to studding, using pliers, and cover ends of anchors with plaster to secure anchors in place. May assist Marble Setter to saw and position marble. May erect scaffolding and related installation structures.

### **BRICKLAYER (Terrazzo Finisher)**

Supplies and mixes construction materials for Terrazzo Worker, applies grout, and finishes surface of installed terrazzo: Moves terrazzo installation materials, tools, machines, and work devices to work areas, manually or using wheelbarrow. Measures designated amounts of ingredients for terrazzo or grout, using graduated containers and scale, following standard formulas and specifications, and loads portable mixer, using shovel. Mixes materials according to experience and requests from Terrazzo Worker and dumps mixed materials that form base or top surface of terrazzo into prepared

installation site, using wheelbarrow. Applies curing agent to installed terrazzo to promote even curing, using brush or sprayer. Grinds surface of cured terrazzo, using power grinders, to smooth terrazzo and prepare for grouting. Spreads grout across terrazzo to fill surface imperfections, using trowel. Fine grinds and polishes surface of terrazzo, when grout has set, using power grinders. Washes surface of polished terrazzo, using cleanser and water, and applies sealer, according to manufacturer's specifications, using brush. Installs grinding stone in power grinders, using handtools. Cleans installation site, mixing and storage areas, tools, machines, and equipment, using water and various cleaning devices. Stores terrazzo installation materials, machines, tools, and equipment. May modifying mixing, grouting, grinding, and cleaning procedures according to type of installation or material used. May assist Terrazzo Worker to position and secure moisture membrane and wire mesh prior to pouring base materials for terrazzo installation.

May spread marble chips or other material over fresh terrazzo surface and press into terrazzo, using roller. May cut divider and joint strips to size as directed. May cut grooves in terrazzo stairs, using power grinder, and fill grooves with nonskid material.

## **BRICKLAYER (Tile Finisher)**

Supplies and mixes construction materials for Tile Setter, applies grout, and cleans installed tile: Moves tiles, tilesetting tools, and work devices from storage area to installation site manually or using wheelbarrow. Mixes mortar and grout according to standard formulas and request from Tile Setter, using bucket, water hose, spatula, and portable mixer. Supplies Tile Setter with mortar, using wheelbarrow and shovel. Applies grout between joints of installed tile, using grouting trowel. Removes excess grout from tile joints with wet sponge and scrapes corners and crevices with trowel. Wipes surface of tile after grout has set to remove grout residue and polish tile, using nonabrasive materials. Cleans installation site, mixing and storage areas, and installation machines, tools, and equipment, using water and various cleaning tools. Stores tile setting materials, machines, tools, and equipment. May apply caulk, sealers, acid steam, or related agents to caulk, seal, or clean installed tile, using various application devices and equipment. May modifying mixing, grouting, grinding, and cleaning procedures according to type of installation or material used. May assist Tile Setter to position and secure metal lath, wire mesh, or felt paper prior to installation of tile. May cut marked tiles to size, using power saw or tile cutter.

## **CARPENTER**

Constructs, erects, installs and repairs structures and fixtures of wood, plywood, and wallboard, using carpenter's handtools and power tools, and conforming to local building codes: Studies blueprints, sketches, or building plans for information pertaining to type of material required, such as lumber or fiberboard, and dimensions of structure or fixture to be fabricated. Selects specified type of lumber or other materials. Prepares layout,



using rule, framing square, and calipers. Marks cutting and assembly lines on materials, using pencil, chalk and marking gauge. Shapes materials to prescribed measurements, using saws, chisels, and planes. Assembles cut and shaped materials and fastens them together with nails, dowel pins, or glue. Verifies trueness of structure with plumb bob and carpenter's level. Erects framework for structures and lays subflooring. Builds stairs and lays out and installs partitions and cabinet work. Covers subfloor with building paper to keep out moisture and lays hardwood, parquet, and wood-strip-block floors by nailing floors to subfloor or cementing them to mastic or asphalt base. Applies shock-absorbing, sound-deadening, and decorative paneling to ceilings and walls. Fits and installs prefabricated window frames, doors, doorframes, weather stripping, interior and exterior trim, and finish hardware, such as locks, letterdrops, and kick plates.

Assembles scaffolding and seals off work area, using plastic sheeting and duct tape. Positions mobile decontamination unit or portable showers at entrance of work area. Builds connecting walkway between mobile unit or portable showers and work area, using handtools, lumber, nails, plastic sheeting, and duct tape

Constructs forms and chutes for pouring concrete. Erects scaffolding and ladders for assembling structures above ground level. May weld metal parts to steel structural members. When specializing in particular phase of carpentry, is designed according to specialty as combination window installer (construction); when specializing in finish carpentry, such as installing interior and exterior trim, building stairs, and laying floors, is designated Finish Carpenter (construction). When erecting frame buildings and performing general carpentry work in residential construction, is designated House Carpenter (construction). May remove and replace sections of structures prior to and after installation of materials and be designated Building-Insulating Carpenter (construction; retail trade). May perform carpentry work in construction of walk-in freezers and environmental test chambers and be designated Carpenter, Refrigerator (svc. ind. Mach). May be designated: Door Hanger (construction); Finished-Hardware Erector (construction); Garage- Door Hanger (constructor)Hardwood-Floor Installer (construction); Jalousie Installer (construction); Stair Builder (construction); Trim Setter (construction); Weather Stripper (construction); Wood Strip-Block Installer (construction).

**Other descriptions of Carpenter work:**

Pile Driver, Dock Builders, Resilient Floors, Computer Floors, Pedestal Floors, Carpet Installation, Siding, Acoustical Ceilings, Metal And Wood Framing, Furniture Installation, Lathing, Scaffold Erecting, Metal Partitions, Disassembly Of Forms For Concrete, Counter Tops Of All Materials, Plastic Laminates, Solid Surface Materials, Toilet Partitions,



## **CEMENT FINISHER, PLASTERER**

Smooths and finishes surfaces of poured concrete floors, walls, sidewalks, or curbs to specified textures, using handtools or power tools, including floats, trowels, and screeds: Signals concrete deliverer to position truck to facilitate pouring concrete. Moves discharge chute of truck to direct concrete into forms. Spreads concrete into inaccessible sections of forms, using rake or shovel. Levels concrete to specified depth and workable consistency, using hand held screed and floats to bring water to surface and produce soft topping. Smooths and shapes surfaces of freshly poured concrete, using straightedge and float or power screed. Finishes concrete surfaces, using power trowel, or wets and rubs concrete with abrasive stone to impart finish. Removes rough or defective spots from concrete surfaces, using power grinder or chisel and hammer, and patches holes with fresh concrete or epoxy compound. Molds expansion joints and edges, using edging tools, jointers, and straightedge. May sprinkle colored stone chips, powdered steel, or coloring powder on concrete to produce prescribed finish. May produce rough concrete surface, using broom. May mix cement, using hoe or concrete-mixing machine. May direct sub-grade work, mixing of concrete, and setting of forms. May specialize in finishing steps and stairways and be designated Step Finisher (construction). May break up and repair old concrete surfaces, using pneumatic tools, and be designated Cement Mason, Maintenance (any industry).

## **ELECTRICIAN**

Plans layout, installs, and repairs wiring, electrical fixtures, apparatus, and control equipment: Plans new or modified installations to minimize waste of materials, provide access for future maintenance, and avoid unsightly, hazardous, and unreliable wiring, consistent with specifications and local electrical codes. Prepares sketches showing location of wiring and equipment, or follows diagrams or blueprints, ensuring that concealed wiring is installed before completion of future walls, ceilings, and flooring. Measures, cuts, bends, threads, assembles, and installs electrical conduit, using tools, such as hacksaw, pipe threader, and conduit bender. Pulls wiring through conduit. Splices wire by stripping insulation from terminal leads, using knife or pliers, twisting or soldering wires together, and applying tape or terminal caps. Connects wiring to lighting fixtures and power equipment, using handtools. Installs control and distribution apparatus, such as switches, relays, and circuit-breaker panels, fastening in place with screws or bolts, using handtools and power tools. Connects power cables to equipment, such as electric range or motor, and installs grounding leads. Lays PVC pipe for main feed electric line. Tests continuity of circuit to ensure electrical compatibility and safety of components, using testing instruments, such as ohmmeter, battery and buzzer, and oscilloscope.

## **ELEVATOR CONSTRUCTOR**

Assembles and installs electric and hydraulic freight and passenger elevators, escalators, and dumbwaiters, determining layout and electrical connections from blueprints: Studies blueprints and lays out location of framework, counterbalance rails, motor pump, cylinder, and plunger foundations. Drills holes in concrete or structural steel members with portable electric drill. Secures anchor bolts or welds brackets to support rails and framework, and verifies alignment with plumb bob and level. Cuts prefabricated sections of framework, rails, and other elevator components to specified dimensions, using acetylene torch, power saw, and disc grinder. Installs cables, counterweights, pumps, motor foundations, escalator drives, guide rails, elevator cars, and control panels, using handtools. Connects electrical wiring to control panels and electric motors. Installs safety and control devices. Positions electric motor and equipment on top of elevator shaft, using hoists and cable slings. May be designated according to type of equipment installed as Elevator Constructor, Electric(construction): Elevator Constructor, Hydraulic (construction); Escalator Constructor (construction).

## **ELEVATOR CONSTRUCTOR HELPER**

Assist ELEVATOR CONSTRUCTOR (construction) to install freight and passenger elevators: Raises and moves heavy machinery and equipment, using hoist, dollies, rollers, wire rope, and cable slings. Holds material in position to assist in installing rails and supporting framework. Drills holes in concrete or steel, using portable electric drill. Assembles and bolts rails, elevator motor, car, and control panels preparatory to installation. Performs other duties as described under HELPER (any industry) Master Title

## **GLAZIER**

Installs glass in windows, skylights, store fronts, and display cases, or on surfaces, such as building fronts, interior walls, ceilings, and tabletops: Marks outline or pattern on glass, and cuts glass, using glasscutter. Breaks off excess glass by hand or with notched tool. Fastens glass panes into wood sash with glazier's points, and spreads and smooths putty around edge of panes with knife to seal joints. Installs mirrors or structural glass on building fronts, walls, ceilings, or tables, using mastic, screws, or decorative molding. Bolts metal hinges, handles, locks, and other hardware to prefabricated glass doors. Sets glass doors into frame and fits hinges. May install metal window and door frames into which glass panels are to be fitted. May press plastic adhesive film to glass or spray glass with tinting solution to prevent light glare. May install stained glass windows. May assemble and install metal-framed glass enclosures for showers and be designated Shower-Enclosure Installer (construction). May be designated according to type of glass installed as Glazier, Structural Glass (construction); Plate-Glass Installer (construction).

## **INSULATION WORKER FOR MECHANICAL TRADES/ASBESTOS WORKER**

Applies insulating material\* to exposed surfaces of structures, such as air ducts, hot and cold pipes, storage tanks, and cold storage rooms: Reads blueprints and selects required insulation material (in sheet, tubular, or roll form), such as fiberglass, foam rubber, Styrofoam, cork, or urethane, based on material's heat retaining or excluding characteristics. Brushes adhesives on or attaches metal adhesive-backed pins to flat surfaces as necessary to facilitate application of insulation material. Measures and cuts insulation material to specified size and shape for covering flat or round surfaces, using tape measure, knife, or scissors. Fits, wraps, or attaches required insulation material around or to structure, following blueprint specifications. Covers or seals insulation with preformed plastic covers, canvas strips, sealant, or tape to secure insulation to structure, according to type of insulation used and structure covered, using staple gun, trowel, paintbrush, or caulking gun.

Removes asbestos from ceilings, walls, beams, boilers, and other structures, following hazardous waste handling guidelines. Positions portable air evacuation and filtration system inside work area. Sprays chemical solution over asbestos covered surfaces, using tank with attached hose and nozzle, to soften asbestos. Cuts and scrapes asbestos from surfaces, using knife and scraper. Shovels asbestos into plastic disposal bags and seals bags, using duct tape. Cleans work area of loose asbestos, using vacuum, broom, and dust pan. Places asbestos in disposal bags and seals bags, using duct tape. Dismantles scaffolding and temporary walkway, using handtools, and places plastic sheeting and disposal bags into transport bags. Seals bags, using duct tape, and loads bags into truck.

*\*Note: Removal of asbestos must be in compliance with the Tennessee Occupational Safety and Health Regulations 29 CFR 1926.1101*

*\*Note: Installation of insulation is also found in other classifications relating to other trades.*

## **IRONWORKER**

Performs any combination of following duties to raise, place, and unite girders, columns, and other structural-steel members to form completed structures or structure frameworks, working as member of crew: Sets up hoisting equipment for raising and placing structural-steel members. Fastens steel members to cable of hoist, using chain, cable, or rope. Signals worker operating hoisting equipment to lift and place steel member. Guides member, using tab line (rope) or rides on member in order to guide it into position. Pulls, pushes, or pries steel members into approximate position while member is supported by hoisting device. Forces members into final position, using turnbuckles, crowbars, jacks, and hand tools. Aligns rivet holes in members with corresponding holes in previously placed member by driving drift pins or handle of wrench through holes. Verifies vertical and horizontal alignment of members, using

plumb bob and level. Bolts aligned members to keep them in position until they can be permanently riveted, bolted, or welded in place. Catches hot rivets tossed by rivet heater (heat treating) in bucket and inserts rivets in holes, using tongs. Bucks (holds) rivets while riveter, pneumatic, uses air-hammer to form heads on rivets. Cuts and welds steel members to make alterations, using oxyacetylene welding equipment. May specialize in erecting or repairing specific types of structures and be designated Bridge-Maintenance Worker (construction), Chimney Builder, Reinforced Concrete (construction), Metal Building (construction), Structural Steel Equipment Erector (construction).

Positions and secures steel bars in concrete forms to reinforce concrete: Determines number, sizes, shapes, and locations of reinforcing rods from blueprints, sketches, or oral instructions. Selects and places rods in forms, spacing and fastening them together, using wire and pliers. Cuts bars to required lengths, using hacksaw, bar cutters, or acetylene torch. May bend steel rods with hand tools or rod bending machine. May reinforce concrete with wire mesh. May weld reinforcing bars together, using arc-welding equipment. Welds deck pans on a bridge, reinforcing supports for the concrete structure. Installation of all wire, cable, steel and other materials used for the purpose of pre-stressing and post-stressing concrete girders, beams, columns, etc; loading, unloading hoisting, handling, signaling, placing and erections of all pre-stressed, post-stressed, pre-cast material including grouting of post tension cables, glass fiber reinforced concrete panels, including the securing by bolting and/or welding and the installation of steeltex and wire mesh of any type when used for reinforced concrete construction.

Erects, trims, and fits together by means of bolts and clamps, iron grills, grating, and special stairways. Erects ornamental enclosures and other ironwork not included in structural ironwork. Fastens ironwork to walls of buildings by means of bolts, brackets of anchors. Fastens newel posts, balusters, and other parts of stairways by fastening to supports or embedding them in sockets. Forges, welds, drills, and cuts as needed.

## **LABORER (Class A)**

Performs any combination of the following duties on construction projects, usually working in utility capacity, by transferring from one task to another where demands require worker with varied experience and ability to work without close supervision. *Laborers may not assist mechanics in the performance of mechanic's work using tools peculiar to an established trade.*

Their work is to be confined to the following tasks and operation of various power tools such as but not limited to:

- May operate various power tools and perform duties such as but not limited to: Operation of Jackhammers, Air Tampers, Vibrators, Cat-crawlers, Chipping Hammers, Motorized Wheel-barrows, Concrete Saws, motorized Posthole Diggers,

Chain Saws, Air Tools, Power-driven Tools, Mortar Mixers. Duties as Mason Tenders, Asphalt Rakers, Form Setters, Strippers, Tool-room Attendants.

- Performs variety of task involving dextrose use of hands and tools such as demolishing buildings, sawing ruff lumber, dismantling of forms, removing projects from concrete, mounting pipe hangers, work is usually performed with other workers. Uses a cutting torch for demolition work on steel or other metal structures
- On utility projects, laying tile, concrete, or corrugated metal pipe; receiving pipe lowered from top of trench; inserting spigot end of pipe into bell end of last laid pipe; adjusting pipe to line and grade; sealing joints with cement or other sealing compound;
- Assisting in the pouring of concrete by spreading concrete, cleaning and caring of cement mason's tools, mixing mortar used in the patching of concrete, and performing other tasks as may be directed by cement mason or plasterer; mixing mortar for working; setting up scaffolding as directed by foreman;
- Assisting brick-masons, stone-mason, and block-masons by preparing mortar mix, either by hand or machine, delivering material to masons on scaffold, operating small material moving equipment such as power buggy, hoists, mortar mix pumps and other similar equipment; erects and dismantles bricklayer scaffolds assist according to directions of mason.
- Mixes plaster to be used in a machine designed to apply plaster to surfaces by means of a hose; handling and maintaining hose, placing and moving machine. May service and maintain machine, as necessary. May also be in charge of cleaning and caring for tools and equipment used in the preparation and application of plaster.

### **LABORER (Class B) *Unskilled***

Laborers may not assist mechanics in the performance of mechanic's work using tools peculiar to an established trade. Their work is to be confined to the following manual tasks:

- Digging and filling holes and trenches;
- Loading, unloading and stockpiling materials; Cleaning and sweeping;
- Driving stakes; Stripping forms;
- Ripping out material which is to be discarded;
- Ground cleanup of roof removal work. Performs roof removal work for demolition;
- Clearing and grubbing;
- Flagging;

- Operating chippers and/or stump grinders;
- Cleaning, screening and feeding sand to hopper or pot of sandblasting machine;
- Cleaning and preparing surfaces by the use of sandblasting equipment;
- Assisting in setting up drill, assorting drill steels, and inserting drill steel into drill chuck (as Wagon, Air Track, Drill and Diamond Drillers' Tender - Outside); lubricating drill;
- Cleans and washes windows;
- Performing landscaping duties including site development, soil preparation, fertilizing, the building of garden accessories, preparation for the installation of garden sprinkler systems; operating small walking type farm equipment; **duties shall not include electrical work, fencing, concrete retaining walls, or other work which is generally performed by skilled craftsmen.**

## MILLWRIGHT

Installs machinery and equipment according to layout plans, blueprints, and other drawings in industrial establishment, using hoists, lift trucks, handtools, and power tools: Read blueprints and schematic drawings to determine work procedures. Dismantles machines, using hammers, wrenches, crowbars and other handtools. Moves machinery and equipment, using hoists, dollies, rollers, and trucks. Assembles and installs equipment, such as shafting, conveyors, and tram rails, using hand tools and power tools. Constructs foundation for machines, using hand tools and building materials, such as wood, cement, and steel. Aligns machines and equipment, using hoists, jacks, handtools, squares, rules, micrometers, and plumb bobs. Assembles machines, and bolts, welds, rivets, or otherwise fastens them to foundation or other structures, using handtools and power tools. May operate engine lathe to grind, file, and turn machine parts to dimensional specifications. May repair and lubricate machines and equipment. May install robot and modify its program, using teach pendant. May perform installation and maintenance work as part of team of skilled trades workers.

## CLASS "A" OPERATORS

Operates a wide variety of equipment of heavy equipment such as but not limited to: Backhoes, Drag Lines, Cranes, Winches w/booms, Motor Patrols, Trenching Machines (18"and over), Pile Drivers, Tug Boats, Mechanics (heavy), Central Mixing Plants, Locomotives, Straddle Carriers, Earth Freezing Equipment, 3-Drum Hoist, Side Booms, Dredges, Mucking Machines, Cableways, Central Compressor Plants, Derrick Boats, Concrete Pumps, Well Point Systems, Self Propelled Sweepers, Bulldozers, Forklifts, Front End Loaders

### Typical Duties:

Adjusts hand-wheels, depresses pedals and moves levers to drive equipment and control attachments such as blades, buckets, scrapers and swing booms. Turns valves



to control air and water output of compressors and pumps. Repairs, maintains and services equipment as needed.

### **Various Equipment Operating Engineers May Operate:**

(Operates Steel and Stone handling equipment in connection with erection; machine-handling machinery, cable spinning machine, backhoes, conveyor loader, drag lines, keystones. All types of shovels, derricks, trench shovels, trenching machines, pippin type backhoe, hoists, pavers, milling machine, mucking machine, gradalls, front-end loaders, tandem scraper; drills (self-contained Drillmaster type), fork lift, motor patrols, batch plant with mixer; scraper and tournapull, rollers, spreaders, bulldozers, tractors, conveyors, pressure boilers, well drillers, ditch witch type trenchers, motor patrol, concrete breaking machines, fine grade machines, seamen pulverizing mixer; form line graders, road finishing machines, power boom, seed spreader; grease truck, conveyors, wellpoints, compressors, pumps and machines similar to above. Included in this classification are tiremen on power equipment, asphalt plant engineers, maintenance engineer (power boat), firemen, oilers and deck hands (personnel boats), and grease truck helper.

## **CLASS "B" OPERATORS**

Operates a wide variety of equipment such as Trenching Machines (less than 18"), Tandem Rollers, Pavers, Mobile Mixers, (rubber-tired mobile, mixed on job), Back Fillers, Blade Graders, Dinkeys (over 10 tons) Elevating Graders, Winches (operated from trucks or tractors w/o boom and powered by other than the truck), Bituminous Dist., 1 and 2 Drum Hoists, Grout Pumps, Motor Boats, Self-Propelled Earth Compactors, Finishing Machines, Mixers, Switchmen, Brakemen, Firemen.

### **Typical Duties:**

Adjusts hand-wheels, depresses pedals and moves levers to drive equipment and control attachments such as blades, buckets, scrapers and swing booms. Turns valves to control air and water output of compressors and pumps. Repairs, maintains and services equipment as needed

## **CLASS "C" OPERATORS**

Operates a wide variety of equipment such as: Air Compressors, Earth Drills, Scales, Tractors (40 H.P. and less) Pumps (larger than 4") Dinkeys (less than 10 tons), Motor Crane Drivers, Oilers.

### **Typical Duties:**

Adjusts hand wheels, depresses pedals and moves levers to drive equipment and control attachments. Turns valves to control air and water output of compressors and pumps. Repairs, maintains and services equipment as needed

## **PAINTER/PLASTER**

Applies coats of paint, varnish, stain, enamel, or lacquer to decorate and protect interior or exterior surfaces, trimmings, and fixtures of buildings and other structures: Reads work order or receives instructions from supervisor regarding painting. Smooths surfaces, using sandpaper, brushes, or steel wool, and removes old paint from surfaces (to include lead based paint), using paint remover, scraper, wire brush, or blowtorch to prepare surfaces for painting. Fills nail holes, cracks, and joints with caulk, putty, plaster, or other filler, using caulking gun and putty knife. Selects premixed paints, or mixes required portions of pigment, oil, and thinning and drying substances to prepare paint that matches specified colors.

Removes fixtures, such as pictures and electric switchcovers from walls prior to painting, using screwdriver. Spreads dropcloths over floors and room furnishings, and covers surfaces, such as baseboards, doorframes, and windows with masking tape and paper to protect surfaces during painting. Paints surfaces, using brushes, spray gun, or paint rollers. Simulates wood grain, marble, brick, or tile effects. Applies paint with cloth, brush, sponge, or fingers to create special effects. Erects scaffolding or sets up ladders to perform tasks above ground level. May be designated according to type of work performed as Painter, Interior Finish (construction); Painter, Maintenance (any industry); or according to type of material used as Calciminer (construction); Varnisher (construction). May also hang wallpaper and fabrics. May wash surfaces prior to painting with mildew remover, using brush.

Drywall finishing work will include, but not be limited to: (1) the preparation or leveling of any surface or substrate which is to receive a coating, finish and/or wall covering; this will include, but not be limited to, all levels of finishing and/or spackling of all surfaces, including gypsum wallboard taping and finishing, fire taping and all firestopping systems, glaze coatings, skim coating or any other finishing system, spotting of nails, finishing of corner beads/flex beads. Patching and sanding is within the system of preparing surfaces for finishes. (2) all stucco and dryvit systems.

Applies coats of plaster to interior walls, ceilings, and partitions of buildings, to produce finished surface, according to blueprints, architect's drawings, or oral instructions, using hand tools and portable power tools: Directs workers to mix plaster to desired consistency and to erect scaffolds.

Spreads plaster over lath or masonry base, using trowel, and smooths plaster with darby and float to attain uniform thickness. Sprays fireproof insulation onto steel beams. Applies scratch, brown, or finish coats of plaster to wood, metal, or board lath successively. Roughens undercoat with scratcher (wire or metal scraper) to provide bond for succeeding coats of plaster. Creates decorative textures in finish coat by marking surface of coat with brush and trowel or by spattering surface with pebbles.

May install lathing. May mix mortar. May install guide wires on exterior surface of buildings to indicate thickness of plaster to be applied. May install precast ornamental plaster pieces by applying mortar to back of pieces and pressing pieces into place on wall or ceiling.

Molds and installs ornamental plaster panels and trim, and runs (casts) ornamental plaster cornices and moldings by either of the following methods: (1) Spreads freshly mixed plaster on table or in forms with trowel when molding and installing ornamental trim. Shapes plaster by hand, using template and cuts trim to size after plaster has hardened. Applies coat of plaster to wall and presses trim into position. (2) Nails wooden strips to wall and ceiling to serve as guide for template when casting (running) cornices or moldings. Applies plaster to wall or ceiling, using trowel. Pushes template over plaster, striking off excess plaster until desired shape and smoothness of molding is obtained.

Applies weatherproof, decorative covering of Portland cement or gypsum plaster to outside building surfaces, using handtools. Decorates final or finish coat by marking coat with sand, or with brush or trowel, or by spattering with small stones. May nail wire mesh, lath, or similar material to outside surfaces to serve as binding device to hold stucco in place. May apply stucco, using spray gun. May install guide wires on surface of buildings to indicate thickness of stucco to be applied.

## **PLUMBER/PIPEFITTER/STEAM FITTER/SPRINKLER FITTER**

Lays out, assembles, installs, and maintains pipe systems, pipe supports, and related hydraulic and pneumatic equipment for steam, hot water, heating, cooling, lubricating, sprinkling, and industrial production and processing systems, applying knowledge of system operation, and following blueprints: Selects type and size of pipe, and related materials and equipment, such as supports, hangers, and hydraulic cylinders, according to specifications. Inspects work site to determine presence of obstructions and to ascertain that holes cut for pipe will not cause structural weakness. Plans installation or repair to avoid obstruction and to avoid interfering with activities of other workers. Cuts pipe, using saws, pipe cutter, hammer and chisel, cutting torch and pipe cutting machine. Threads pipe, using pipe threading machine. Bends pipe, using pipe bending tools and pipe bending machine. Assembles and installs variety of metal and nonmetal pipes, tubes, and fittings, including iron, steel, copper, and plastic. Connects pipes, using threaded, caulked, soldered, brazed, fused, or cemented joints and handtools. Secures pipes to structure with brackets, clamps, and hangers, using handtools and power tools. Installs and maintains hydraulic and pneumatic components of machines and equipment, such as pumps and cylinders, using handtools. Installs and maintains refrigeration and air-conditioning systems, including compressors, pumps, meters, pneumatic and hydraulic controls, and piping, using handtools and power tools, and following specifications and blueprints. Increases pressure in pipe system and observes connected pressure gauge to test system for leaks. May weld pipe supports to structural steel members. May operate machinery to verify repair. May modify programs of

automated machinery, such as robots and conveyors, to change motion and speed of machine, using teach pendant, control panel, or keyboard and display screen of robot controller and programmable controller. May be designated Steam Fitter when installing piping systems that must withstand high pressure.

Assembles, installs, and repairs pipes, fittings, and fixtures of heating, water, and drainage systems, according to specification and plumbing codes: Studies building plans and working drawings to determine work aids required and sequence of installations. Inspects structure to ascertain obstructions to be avoided to prevent weakening of structure resulting from installation of pipe. Locates and marks position of pipe and pipe connections and passage holes for pipes in walls and floors, using ruler, spirit level, and plumb bob. Cuts openings in walls and floors to accommodate pipe and pipe fittings, using handtools and power tools. Cuts and threads pipe, using pipe cutters, cutting torch, and pipe-threading machine. Bends pipe to required angle by use of pipe-bending machine or by placing pipe over block and bending it by hand. Assembles and installs valves, pipe fittings, and pipes composed of metals, such as iron, steel, brass, and lead, and nonmetals, such as glass, vitrified clay, and plastic, using handtools and power tools. Joins pipes by use of screws, bolts, fittings, solder, plastic solvent, and caulks joints. Fills pipe system with water or air and reads pressure gauges to determine whether system is leaking. Installs and repairs plumbing fixtures, such as sinks, commodes, bathtubs, water heaters, hot water tanks, garbage disposal units, dishwashers, and water softeners. Repairs and maintains plumbing by replacing washers in leaky faucets, mending burst pipes, and opening clogged drains. May weld holding fixtures to steel structural members.

Test, adjust and balance heating and cooling pipe systems in commercial and industrial buildings using specialized tools and equipment to attain performance standards specified in system design. Adjusts flow control valves in piping to balance system, using hand tools such as pliers, screwdriver, and wrenches. Work with balancing personnel to perform tests to see if the heating and cooling systems are operating to specifications and detect malfunctions in piping system component parts.

### **SPRINKLER FITTER DUTIES**

Installs and maintains all fire protection and fire control Systems including the unloading, handling by hand, power equipment and installation of all piping or tubing, appurtenances and equipment pertaining thereto, including both overhead and underground water mains, fire hydrants and hydrant mains, standpipes and hose connections to sprinkler Systems, sprinkler tank heaters, air lines and thermal Systems used in connection with sprinkler and alarm Systems, also all tanks and pumps connected thereto, also included shall be CO-2 and Cardox Systems, Dry Chemical Systems, Foam Systems, Halon and all other fire protection systems, the locating of and cutting or coring of all holes for piping and the setting of all sleeves and inserts required for the installation of the work.

## **ROOFER**

Covers roofs with roofing materials other than sheet metal, such as composition shingles or sheets, wood shingles, or asphalt and gravel, to waterproof roofs: Cuts roofing paper to size, using knife, and nails or staples it to roof in overlapping strips to form base for roofing materials. Aligns roofing material with edge of roof, and overlaps successive layers, gauging distance of overlap with chalkline, gauge on shingling hatchet, or by lines on shingles. Fastens composition shingles or sheets to roof with asphalt, cement, or nails. Punches holes in slate, tile, terra cotta, or wooden shingles, using punch and hammer. Cuts strips of flashing and fits them into angles formed by walls, vents, and intersecting roof surfaces. When applying asphalt or tar and gravel to roof, mops or pours hot asphalt or tar onto roof base. Applies alternate layers of hot asphalt or tar and roofing paper until roof covering is as specified. Applies gravel or pebbles over top layer; using rake or stiff-bristled broom. May construct and attach prefabricated roof sections to rafters. May attach shingles to exterior walls and apply roofing paper and tar to shower pans, decks, and promenades to waterproof surfaces.

Installs insulation in connection with roofer's work. Sprays roofs, sidings, and walls with urethane or polyurethane foam to bind, seal, insulate, or soundproof sections of structures: Flips switches to start generator; air compressor; and heaters. Turns nozzle on spray gun to obtain specified consistency of mixture. Directs foam onto surfaces, and determines thickness of foam, using probe. Connects hose of nitrogen tank to spray compound supply tank when spraying is completed, and turns valves to inject nitrogen into supply tank to prevent crystallization of compounds in tank.

## **SHEET METAL WORKER**

Plans, lays out, fabricates, assembles, installs, and repairs sheet metal parts, equipment, and products, utilizing knowledge of working characteristics of metallic and nonmetallic materials, machining, and layout techniques using handtools, power tools, machines, and equipment: Reads and interprets blueprints, sketches, or product specifications to determine sequence and methods of fabricating, assembling, and installing sheet metal products. Selects gauge and type of sheet metal, such as galvanized iron, copper; steel, or aluminum, or nonmetallic materials such as plastics or fiberglass, according to product specifications. Lays out and marks dimensions and reference lines on material, using scribes, dividers, squares, and rulers, applying knowledge of shop mathematics and layout techniques to develop and trace patterns of product or parts or using templates. Sets up and operates fabricating machines, such as shears, brakes, presses, forming rolls, and routers, to cut, bend, block and form, or straighten materials. Shapes metal material over anvil, block, or other form, using handtools. Trims, files, grinds, deburrs, buffs, and smooths surfaces, using handtools and portable power tools. Welds, solders, bolts, rivets, screws, clips, caulks, or bond component parts to assemble products, using handtools, power tools, and equipment. Installs assemblies in supportive framework according to blueprints, using handtools, power tools, and lifting and handling devices. Inspects assemblies and installation for

conformance to specifications, using measuring instruments, such as calipers, scales, dial indicators, gauges, and micrometers. Repairs and maintains sheet metal products. May operate computer-aided-drafting (CAD) equipment to develop scale drawings of product or system. May operate laser-beam cutter or plasma arc cutter to cut patterns from sheet metal.

Installs sheet metal duct work to facilitate the movement of air. Frequently specializes in such areas as ventilation and air-conditioning, restaurant equipment, architectural sheet metal work.

### **TRUCK DRIVER (3 or more axles)**

Operates truck with 3 or more axles, dump trucks over 6 yards, dumpsters, semi-trailers, tandems escort and pilot vehicles, fiat body material trucks, form trucks, greasers and steamers, rubber-tired towing and pushing vehicles, A-frames, agitators or mixers, asphalt distributors, low-boys, batch truck, euclid type or similar off-highway equipment, off-highway tandem back-dump, specialized earth moving equipment, twin engine equipment and double-hitched equipment, and equipment similar to above.

### **TRUCK DRIVER (2 axles, over 1 ton)**

Operates Trucks with 2 axles over 1 ton, 5-yard Dump Trucks.

### **TRUCK DRIVER (2 axles, 1 ton & less)**

Operates other types of small trucks such as panel truck and pickups.

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